IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1.(Currently Amended) A ~~machine~~ computer readable medium ~~containing~~ ~~executable~~encoded with a computer program instructions which when executed by a data processing system cause said system to perform a method to transform an electronic image, the method comprising:

selecting one or more regions from the image;

determining one or more averages of a color channel for the image corresponding to

the one or more regions, the determining ~~by~~ excluding one or more first pixels

of the image, each of the one or more first pixels being one of:

a) substantially white, and

b) substantially black; and

scaling color signals of the color channel for second pixels of the image according to

the one or more averages, each of the second pixels being not one of:

a) substantially white, and

b) substantially black.

2. (Original) A medium as in claim 1, wherein the one or more averages are determined by further excluding one or more pixels of the image each of which has at least one color component that is one of: a maximum allowable value and a minimum allowable value.

3. (Original) A medium as in claim 1, wherein the color channel is one of:

a) red;

b) green; and

c) blue.

4. (Original)   A medium as in claim 1, wherein the one or more averages comprise at least two of:

a) an average for a center portion of the image;

b) an average for a surrounding portion of the image; and

c) an average for the image.

5. (Currently Amended)   A computer readable medium encoded with a computer program instructions which when executed by a data processing system cause said system to perform a method to transform an electronic image, the method comprising:

determining one or more averages of a color channel for the image by excluding one or more first pixels of the image, each of the one or more first pixels being one of:

a) substantially white, and

b) substantially black; and

scaling color signals of the color channel for second pixels of the image according to the one or more averages, each of the second pixels being not one of:

a) substantially white, and

b) substantially black,

wherein the one or more averages comprise at least two of:

(a) an average for a center portion of the image,

(b) an average for a surrounding portion of the image, and

(c) an average for the image, and

~~A medium as in claim 4,~~ wherein each of the color signals is scaled with respect to

a signal of a selected color in the color channel by a factor which is a function

of: the one or more averages and a distance to a selected point in the image.

6. (Original)   A medium as in claim 4, wherein each of the color signals is scaled by the one

or more averages to generate respectively one or more signals that are weighted according to a

distance to a selected point in the image.

7. (Original)   A medium as in claim 1, wherein each of the color signals is scaled with

respect to a signal of the color channel of a selected color.

8. (Original)   A medium as in claim 7, wherein the selected color is gray.

9. (Original)   A medium as in claim 1, wherein each of the color signals is scaled further

according to a distance to a selected point in the image.

10. (Original) A medium as in claim 1, wherein the method further comprises:

adjusting luminance levels of the second pixels back to levels before the color signals of the

color channel are scaled.

11. (Original) A medium as in claim 1, wherein the method further comprises:

adjusting luminance levels of the second pixels to stretch a range of luminance levels of the

second pixels to a predetermined range.

12. (Original) A medium as in claim 11, wherein the predetermined range is a maximum allowable range.

13. (Original) A medium as in claim 12, wherein the range of luminance levels of the second pixels is linearly stretched.

14. (Original) A medium as in claim 11, wherein the luminance levels of the second pixels are determined with equal weights for all color channels which consist red, green and blue channels.

15. (Original) A medium as in claim 11, wherein the method further comprises: decreasing luminance levels for third pixels in a boundary region of the image according to distances of the third pixels to a selected point in the image.

16. (Currently Amended)   A method to transform an electronic image, the method comprising:

   selecting one or more regions from the image;

   determining one or more averages of a color channel for the image corresponding to

      the one or more regions, the determining by excluding one or more first

      pixels of the image, each of the one or more first pixels being one of:

         a) substantially white, and

         b) substantially black; and

      scaling color signals of the color channel for second pixels of the image according to

the one or more averages, each of the second pixels being not one of:

a) substantially white, and

b) substantially black.

17. (Original) A method as in claim 16, wherein the one or more averages are determined by further excluding one or more pixels of the image each of which has at least one color component that is one of: a maximum allowable value and a minimum allowable value.

18. (Original) A method as in claim 16, wherein each of the color signals is scaled with respect to a signal of the color channel of a selected color.

19. (Original) A method as in claim 16, wherein each of the color signals is scaled further according to a distance to a selected point in the image.

20. (Original) A method as in claim 16, further comprising:
adjusting luminance levels of the second pixels back to levels before the color signals of the color channel are scaled.

21. (Original) A method as in claim 16, further comprising:
adjusting luminance levels of the second pixels to stretch a range of luminance levels of the second pixels to a predetermined range.

22. (Currently Amended) A data processing system to transform an electronic image, the data processing system comprising:

means for selecting two or more regions from the image;

means for determining one or more averages of a color channel for

the image corresponding to the one or more averages, the determining ~~by~~

excluding one or more first pixels of the image, each of the one or more first

pixels being one of:

a) substantially white, and

b) substantially black; and

means for scaling color signals of the color channel for second pixels of the image

according to the one or more averages, each of the second pixels being not one

of:

a) substantially white, and

b) substantially black.

23. (Currently Amended)   A data processing system to transform an electronic image, the

data processing system comprising:

means for determining one or more averages of a color channel for the image by

excluding one or more first pixels of the image, each of the one or more first

pixels being one of:

a) substantially white, and

b) substantially black; and

means for scaling color signals of the color channel for second pixels of the image

according to the one or more averages, each of the second pixels being not one

of:

a) substantially white, and

b) substantially black, and

~~A data processing system as in claim 22,~~ wherein the one or more averages comprise

at least two of:

a) an average for a center portion of the image;,

b) an average for a surrounding portion of the image;,and

c) an average for the image;, and

wherein each of the color signals is scaled with respect to a signal of a selected

color in the color channel by a factor which is a function of:

the one or more averages and a distance to a selected point in

the image.

24. (Original) A data processing system as in claim 22, wherein each of the color signals is

scaled with respect to a signal of the color channel of gray.

25. (Original) A data processing system as in claim 22, wherein each of the color signals is

scaled further according to a distance to a selected point in the image.

26. (Original) A data processing system as in claim 22, further comprising:

means for adjusting luminance levels of the second pixels back to levels before the color

signals of the color channel are scaled.

27. (Original) A data processing system as in claim 22, further comprising:

means for adjusting luminance levels of the second pixels to linearly stretch a range of

luminance levels of the second pixels to a predetermined range; and,

means for decreasing luminance levels for third pixels in a boundary region of the

image according to distances of the third pixels to a selected point in the image.

28. (Currently Amended)   An image capturing device, comprising:

an image sensing device to generate an electronic image; and

a processing circuit coupled to the image sensing device, the processing circuit being

configured to:select one or more regions from the image and

~~determining~~ determine one or more averages of a color channel for the image

corresponding to the one or more regions by excluding one or more first pixels

of the image, each of the one or more first pixels being one of:

a) substantially white, and

b) substantially black;, and

~~scaling~~ the processing circuit being configured to scale color signals of the

color channel for second pixels of the image according to the one or more

averages, each of the second pixels being not one of:

a) substantially white, and

b) substantially black.

29. (Currently Amended)   An image capturing device, comprising:

an image sensing device to generate an electronic image; and

a processing circuit coupled to the image sensing device, the processing circuit being

configured to determine one or more averages of a color channel for the image

by excluding one or more first pixels of the image, each of the one or more first

pixels being one of:

a) substantially white, and

b) substantially black; and

the processing circuit being configured to scale color signals of the color

channel for second pixels of the image according to the one or more averages,

each of the second pixels being not one of:

a) substantially white, and

b) substantially black, and

wherein ~~An image capturing device as in claim 28, wherein~~ the one or more

averages comprise at least two of:

a) an average for a center portion of the image;

b) an average for a surrounding portion of the image; and

c) an average for the image;

wherein each of the color signals is scaled by the one or more averages to

generate respectively one or more signals that are weighted according to a

distance to a selected point in the image.

30. (Original) An image capturing device as in claim 28, wherein each of the color signals is

scaled with respect to a signal of the color channel of a selected color.

31. (Original) An image capturing device as in claim 28, wherein each of the color signals is

scaled further according to a distance to a selected point in the image.

32. (Original) An image capturing device as in claim 28, wherein the processing circuit further adjusts luminance levels of the second pixels back to levels that are before the color signals of the color channel are scaled.

33. (Original) An image capturing device as in claim 28, wherein the processing circuit further adjusts luminance levels of the second pixels to stretch a range of luminance levels of the second pixels to a predetermined range; wherein the luminance levels of the second pixels are determined with equal weights for all color channels which consist red, green and blue channels.

34. (Currently Amended)   A ~~machine~~ computer readable medium ~~containing~~ ~~executable~~ encoded with computer program instructions which when executed by a data processing system cause said system to perform a method to transform an electronic image, the method comprising:

    selecting a plurality of regions from the image;

    determining a plurality of averages of a color channel for the image corresponding to the plurality of regions; and

    scaling color signals of the color channel for the image according to the plurality of averages.

35. (Original) A medium as in claim 34, wherein the image comprises a frame of a video stream in a video conference; and, said scaling is performed in real time for the video conference.

36. (Original) A medium as in claim 34, wherein the color channel is one of:

a) red;

b) green; and

c) blue.

37. (Currently Amended) A medium as in claim 34, wherein the plurality of ~~averages~~ regions comprise at least one of:

a) ~~an average for~~ a center portion of the image;

b) ~~an average for~~ a surrounding portion of the image; and

c) an ~~average~~ entire region for the image.

38. (Currently Amended) A computer readable medium encoded with computer program instructions which when executed by a data processing system cause said system to perform a method to transform an electronic image, the method comprising:

determining a plurality of averages of a color channel for the image; and

scaling color signals of the color channel for the image according to the plurality of averages;

wherein the plurality of averages comprise at least one of:

a) an average for a center portion of the image,

b) an average for a surrounding portion of the image,

c) an average for the image, and

~~A medium as in claim 37,~~ wherein each of the color signals is scaled with respect to a signal of a selected color in the color channel by a factor which is a function of: the plurality of averages and a distance to a selected point in the image.

39. (Original) A medium as in claim 37, wherein each of the color signals is scaled by the plurality of averages to generate respectively a plurality of signals that are weighted according to a distance to a selected point in the image.

40. (Original) A medium as in claim 34, wherein each of the color signals is scaled with respect to a signal of the color channel of a selected color.

41. (Original) A medium as in claim 40, wherein the selected color is gray.

42. (Original) A medium as in claim 34, wherein each of the color signals is scaled further according to a distance to a selected point in the image.

43. (Original) A medium as in claim 34, wherein the method further comprises:
adjusting luminance levels of pixels of the image back to levels which the pixels have before the color signals of the color channel are scaled.

44. (Original) A medium as in claim 34, wherein the method further comprises:
adjusting luminance levels of pixels of the image to stretch a range of luminance levels of the pixels to a predetermined range.

45. (Original) A medium as in claim 44, wherein the predetermined range is a maximum allowable range.

46. (Original) A medium as in claim 45, wherein the range of luminance levels is linearly stretched.

47. (Original) A medium as in claim 44, wherein the luminance levels are determined with equal weights for all color channels which consist red, green and blue channels.

48. (Original) A medium as in claim 44, wherein the method further comprises:

decreasing luminance levels for pixels in a boundary region of the image according to distances of the pixels in the boundary region to a selected point in the image.

49. (Currently Amended)   A method to transform an electronic image, the method comprising:

     selecting a plurality of regions from the electronic image;

     determining a plurality of averages of a color channel for the image corresponding to the plurality of regions; and

     scaling color signals of the color channel for the image according to the plurality of averages.

50. (Original) A method as in claim 49, wherein the image comprises a frame of a video stream in a video conference; and, said scaling is performed in real time for the video conference.

51. (Original) A method as in claim 49, wherein each of the color signals is scaled with respect to a signal of the color channel of a selected color.

52. (Original) A method as in claim 49, wherein each of the color signals is scaled further according to a distance to a selected point in the image.

53. (Original) A method as in claim 49, further comprising:

adjusting luminance levels of pixels of the image back to levels which the pixels have before the color signals of the color channel are scaled.

54. (Original) A method as in claim 49, further comprising:

adjusting luminance levels of pixels of the image to stretch a range of luminance levels of the pixels to a predetermined range.

55. (Currently Amended)   A data processing system to transform an electronic image, the data processing system comprising:

means for selecting a plurality of regions from the image;

means for determining a plurality of averages of a color channel for the image corresponding to the plurality of regions; and

means for scaling color signals of the color channel for the image according to the plurality of averages.

56. (Original) A data processing system as in claim 55, wherein the image comprises a frame of a video stream in a video conference; and, the color signals are scaled in real time for the video conference.

57. (Original) A data processing system as in claim 55, wherein each of the color signals is scaled with respect to a signal of the color channel of a selected color.

58. (Original) A data processing system as in claim 55, wherein each of the color signals is scaled further according to a distance to a selected point in the image.

59. (Original) A data processing system as in claim 55, further comprising:

means for adjusting luminance levels of pixels of the image back to levels which the pixels have before the color signals of the color channel are scaled.

60. (Original) A data processing system as in claim 55, further comprising:

means for adjusting luminance levels of pixels of the image to stretch a range of

luminance levels of the pixels to a predetermined range; and,

means for decreasing luminance levels for pixels in a boundary region of the image

according to distances of the pixels in the boundary region to a selected point

in the image.

61. (Currently Amended)   An image capturing device, comprising:

an image sensing device to generate an electronic image; and

a processing circuit coupled to the image sensing device, the processing circuit: being

configured to select a plurality of regions from the image, the processing circuit

being configured to determining determine a plurality of averages of a color

channel for the image corresponding to the plurality of regions; and the

processing circuit being configured to scaling scale color signals of the color

channel for the image according to the plurality of averages.

62. (Original) An image capturing device as in claim 61, wherein the image comprises a frame of a video stream in a video conference; and, the color signals are scaled in real time for the video conference.

63. (Original) An image capturing device as in claim 61, wherein each of the color signals is scaled with respect to a signal of the color channel of a selected color.

64. (Original) An image capturing device as in claim 61, wherein each of the color signals is scaled further according to a distance to a selected point in the image.

65. (Original) An image capturing device as in claim 61, wherein the processing circuit further adjusts luminance levels of pixels of the image back to levels which the pixels have before the color signals of the color channel are scaled.

66. (Original) An image capturing device as in claim 61, wherein the processing circuit further adjusts luminance levels of pixels of the image to stretch a range of luminance levels of the pixels to a predetermined range.

67. (Original) An image capturing device as in claim 61, wherein the processing circuit further decreases luminance levels for pixels in a boundary region of the image according to distances of the pixels in the boundary region to a selected point in the image.

68 (New) A computer readable medium encoded with a computer program instructions which when executed by a data processing system cause said system to perform a method to transform an electronic image, the method comprising:

determining one or more averages of a color channel for the image by excluding one or more first pixels of the image, each of the one or more first pixels being one of:

a) substantially white, and

b) substantially black; and

scaling color signals of the color channel for second pixels of the image according to the one or more averages, each of the second pixels being not one of:

a) substantially white, and

b) substantially black